## Partnership for Performance

The Assembled Chemical Weapons Alternatives program, Blue Grass Army Depot and Chemical Activity, U.S. Army Corps of Engineers and support contractor teams work to ensure the chemical weapons destruction project in Richmond is conducted in the safest, most efficient manner possible. Our project is part of an international commitment to prohibit the development, production, stockpiling and use of chemical weapons. More than 175 countries – including the United States – have ratified an international treaty called the Chemical Weapons Convention. The treaty aims to eliminate chemical weapons throughout the world.

Many local and national organizations are partnering with ACWA to complete this mission successfully. Among these organizations are the U.S. Army Chemical Materials Agency, U.S. Army Joint Munitions Command, National Academy of Sciences, Kentucky Department for Environmental Protection and Madison County Emergency Management Agency. In addition, citizen groups are actively involved, including the Kentucky Chemical Demilitarization Citizens' Advisory Commission, known as the CAC, and the Chemical Destruction Community Advisory Board, or CDCAB, a subcommittee of the CAC.

**The Organisation for the Prohibition of Chemical Weapons, headquartered in the Netherlands, oversees implementation of the Chemical Weapons Convention.**

## For More Information

**Blue Grass Chemical Stockpile Outreach Office**
(859) 626-8944

bgoutreach@bah.com

**Bechtel Parsons Blue Grass Public Communications**
(859) 625-1291

swplant@bechtel.com

**Blue Grass Army Depot Public Affairs**
(859) 779-6221

dave.easter@us.army.mil

**Blue Grass Chemical Activity Public Affairs**
(859) 779-6897

richard.sloan@us.army.mil

BGCAPP
Blue Grass Chemical Agent-Destruction Pilot Plant

**www.pmacwa.army.mil**

# BLUE GRASS CHEMICAL AGENT-DESTRUCTION PILOT PLANT

## Our Commitment to Safety

The Blue Grass Chemical Agent-Destruction Pilot Plant, or BGCAPP, will be built to destroy – safely and efficiently – the stockpile of chemical weapons stored at the Blue Grass Army Depot since the 1940s. The Assembled Chemical Weapons Alternatives program, known as ACWA, is responsible for destroying the more than 500 tons of chemical agent at the depot. The safety of our workforce, as well as the safety of the people in our neighboring communities, is the most important priority of this program. The project team has decades of combined experience in safely building, testing and operating chemical weapons destruction facilities.

## Our Commitment to the Community

The Bechtel Parsons Blue Grass Team, the systems contractor responsible for the design, construction, pilot testing, operation and closure of the pilot plant, plans to hire as much of the facility workforce as possible from Richmond and the surrounding region. With the activities at the depot as a catalyst, local citizens are working together on a process to plan for opportunities to shape the community's future.

Bechtel Parsons Blue Grass construction superintendent Otis Drinkard, left, and subcontract technical representative Keith Slaughter observe earth work on the construction site.

## Our Commitment to Openness

As we prepare to build the facility, our partnership with the community remains the cornerstone of our program. Public involvement is key every step of the way. ACWA, the depot and community members worked together to recommend that neutralization followed by supercritical water oxidation, or SCWO, be used to destroy the Blue Grass chemical weapons stockpile.

## Blue Grass Army Depot

The Blue Grass Army Depot, located near Richmond, Ky., safeguards conventional munitions and provides chemical defense equipment and special operations support to the Defense Department.

The depot has a long history of supporting the nation's chemical defense efforts.

The Blue Grass Chemical Activity, a tenant of the 15,000-acre depot, is responsible for the safekeeping of a portion of the nation's chemical weapons stockpile. The Activity reports to the U.S. Army Chemical Materials Agency.

The depot has a long history of supporting the nation's chemical defense efforts. Since the 1940s, the Army has safely stored a portion of the nation's chemical weapons stockpile at the depot. The stockpile includes mustard, a blistering agent, and the nerve agents VX and GB.

## State-of-the-Art Technology

The pilot plant will perform a variety of functions – munition storage, agent processing, energetics processing, laboratory analysis, facility maintenance and other support tasks – as it destroys the chemical weapons stockpile.

Extensively trained, skilled workers and state-of-the-art robotics systems will ensure the safe destruction of the stockpile. The selected technology uses hot caustic solution or hot water to destroy the chemical agent.

## How Neutralization Followed by SCWO Works

- Munitions are disassembled by modified reverse assembly. The chemical agents and energetics are separated and chemically mixed with caustic or water to destroy the chemical agent. The resulting chemical compounds, known as hydrolysates, are held and tested to ensure agent destruction before proceeding to secondary treatment.
- The agent and energetic hydrolysates are fed to SCWO units to destroy the organic materials. SCWO subjects the hydrolysate to very high temperatures and pressures, breaking them down into carbon dioxide, water and salts.
- Metal parts are thermally decontaminated by heating to 1,000 degrees Fahrenheit for a minimum of 15 minutes.
- Gas effluents are filtered through a series of HEPA and carbon filters before being released to the atmosphere. The majority of the water is recycled into the pilot plant facility and reused as part of the destruction process. The remainder is shipped off site for disposal.